

Amendments to the Claims

This listing of the claims will replace all prior versions, and listings, of claims in the above-identified application:

Listing of Claims:

1. - 4. (Cancelled)
5. (Currently amended) A method for preparing a microarray having a hydrophobic barrier defining a plurality of subarrays on the microarray, the microarray constructed by a ~~microarray-synthesis~~ maskless array synthesizer instrument, the method comprising the steps of:
 - a) selecting at least one probe set comprising probes of interest;
 - b) synthesizing the probe sets on a microarray slide to provide the plurality of subarrays using the ~~microarray-synthesis~~ maskless array synthesizer instrument;
 - c) depositing between each of the subarrays a hydrophobic group-bearing phosphoramidite to provide a hydrophobic barrier which surrounds each subarray also using the ~~microarray-synthesis~~ maskless array synthesizer instrument; and
 - d) inhibiting fluid communication between each of the subarrays on the microarray.
6. (Original) The method of Claim 5 wherein hydrophobic barrier is synthesized using a hydrophobic group-bearing phosphoramidite.
7. (Original) The method of Claim 6 wherein the phosphoramidite is a trityl protected phosphoramidite.
8. (Cancelled)

9. (Currently amended) A method for preparing a microarray having a hydrophobic barrier defining a plurality of subarrays on the microarray, wherein the substrate containing the microarray is held in the identical position by a[[n]] maskless array synthesizer instrument throughout the method, the method comprising the steps of:

- a) selecting at least one probe set comprising probes of interest;
- b) synthesizing the probe sets on a microarray slide using the maskless array synthesizer instrument to provide the plurality of subarrays; and
- c) depositing between each of the subarrays a hydrophobic group-bearing phosphoramidite to provide a hydrophobic barrier which surrounds each subarray using the same maskless array synthesizer instrument used to synthesize the probe sets.

10. (Previously presented) The method of Claim 9 wherein hydrophobic barrier is synthesized using a hydrophobic group-bearing phosphoramidite.

11. (Previously presented) The method of Claim 10 wherein the phosphoramidite is a trityl protected phosphoramidite.